



## *The Laser Promotion Award*

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### *AITeM*

The **AITeM** (Italian Association for Mechanical Technology) was founded in 1992 by a group of academic professors. Nowadays, it counts a number of members and fellows from Universities, Industries and Research Institutions. It represents the cultural and professional reference in Italy concerning laser manufacturing systems and processes. The AITeM promotes the study, the scientific knowledge and the application of mechanical technology and production systems in their many aspects. It is a meeting point for Entrepreneurs, Experts and Research Institutions.

### *Promozione Laser*

**L@ser Promotion** is a department of the AITeM. It was founded in 2005 with the aim of spreading "laser culture" in Italy through the continuous technical and scientific dialogue amongst the members who take

part in the association: Universities, Institutions involved in scientific and applied research activities, producers of laser sources, producers of laser based manufacturing systems and end users of laser systems.



laser beams used for entertainment

### *The Laser Promotion Award 2017*

**L@ser Promotion** promotes the first edition of the competition "**Laser Promotion Award 2017**", contributing to the spread of knowledge and know-how in the field of laser systems and processes. The goal of the program is to involve students from academic courses in a project to re-engineer an existing product; the new design must be mainly focused on laser assisted processes.



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The purpose of the project is to generate an opportunity for discussions and comparisons, thus stimulating the dialogue between Research Institutions and Industry.



Laser head for *cladding*

The competition is based on the knowledge and application of Manufacturing Processes and Systems; it is open and addressed to groups of undergraduate students undertaking a Masters Degree, including interdisciplinary groups.

Each group will develop a project for the production of a commodity - under the supervision of academic tutors and with a possible partnership with enterprises - mostly using laser processes (such as laser cut, laser welding, etc.) and completing the

manufacturing cycle with all the processes that are required for the production of the object.

### The product to be re-engineered

The products chosen and proposed for the competition are two pieces of urban furniture: a street lamp and a bench. The figures below show two examples by Neri, Italy.



Bench Carya, Neri, Italy

### The drawings

The project will have to contain drafts and drawings of the final product.

Drafts and drawings of the different manufacturing steps can be included to

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explain the different phases of the production and of the assembly, including information concerning manufacturing systems and machinery used.



Street Lamp Alcor system by Neri, Italy

### Manufacturing process and involved technologies

The design has to be focused on the application of laser-aided technologies (laser

cut, laser welding, etc.), but can be integrated with all the necessary processes in order to realise the product.

The product production has to be reported in all its manufacturing steps.

The project evaluation will take into account the number and variety of laser assisted processes as well as the proportion between them and the other manufacturing processes.

### The mock-up

A digital mock-up is required for considering and evaluating the project. A physical prototype, produced according to the proposed manufacturing process, is optional but recommended. It will constitute an additional value for the relevance of the project.

### Economic analysis

The project has to include not only the technical specifications that are necessary for the production and the manufacturing process steps, but also a business model and



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the required economic considerations to define the production costs and the selling price as well as the eventual strategy of placement into the market.

### Key Dates

Registration from 15<sup>th</sup> September to 31<sup>st</sup> October 2016 (first semester) and from 15<sup>th</sup> March to 30<sup>th</sup> April 2017 (second semester)

The registration of the working group is carried out by the academic tutors by indicating the name of the group and the chosen object for the project. Teams must be registered by their tutors using the attached form within the closing dates.

Submission of the project within 31<sup>st</sup> July 2017

The submission of the documentation must be completed within 31<sup>st</sup> July 2017. The organisers will communicate the method for submission in the following months.

### Award Ceremony

The submitted projects will be evaluated by the Promotion Laser Award Jury during the

AITeM's conference scheduled for next September, 2017.

The Award Ceremony will be organized during the days of the conference for the group of students presenting the best work according to the guidelines.

### The Award

The Laser Promotion Award 2017 is a grant of 3,000.00 Euros given to the group of undergraduate students presenting the best project.

The Award amount may be increased depending on the number of the sponsors.

### Requirements for the admission to contest

To join the competition, it is necessary that the academic tutors register the group of students through the use of the attached form before of the deadlines of October 31<sup>st</sup> 2016 or April 30<sup>th</sup> 2017 and the documentation concerning the developed activity must be submitted before of the deadline of July 31<sup>st</sup> 2016.



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### Guidelines for the presentation of the project

For the evaluation by the Jury, the group of students must submit a project of the product. The technical report must integrate a description of the manufacturing process, the assembly cycle and used materials through the realization of drawings, drafts, and a digital or physical mock-up of the product. The project has to include the business model with the description of the strategy for the placement of the product on the market.

The project should be no more than 20 pages – including figures and charts- in Italian or English, (max. 40.000 characters in total; font *Times New Roman* dimension 12).

It will be possible to attach other drawings and documents to complete the project.

### Laser Promotion Award Jury

The members of the **Laser Promotion Award Jury** will be selected from members of the AITeM and sponsors.

The Jury's composition will be published before June 30<sup>th</sup> 2017.

### Proponent and sponsor



### Gold Sponsors (alphabetical order)



### Silver Sponsors (alphabetical order)



### Free Legal Aid (alphabetical order)



### Inscription, further information and sponsorship inquiries

*Please, contact Giampaolo Campana by email at the address:*

***giampaolo.campana@unibo***



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### *Registration Form for the Laser Promotion Award 2017*

*University* \_\_\_\_\_

*Name of the work team:* \_\_\_\_\_

*Academic tutors (Names and Departments):*

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*Addresses and contacts for communication:*

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*Chosen product:*

- ☐ *Street lamp*
- ☐ *Bench for urban furniture*

*Please, send by email the filled registration form to Giampaolo  
Campana at the email address: [giampaolo.campana@unibo.it](mailto:giampaolo.campana@unibo.it)*



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### **Gold Sponsors (alphabetical order)**



BLM GROUP

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**Silver Sponsor (alphabetical order)**







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**Patronage (alphabetical order)**



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